

WHAT IS CLAIMED IS:

1. An electric power steering device having a steering wheel; a first resolver for detecting a first steering angle indicating the rotational angle of a steering shaft connected to said steering wheel; a second resolver having pole pairs different in number from those of said first resolver for detecting a second steering angle indicating the rotational angle of said steering shaft; an electric motor for assisting the steering operation performed by a steering mechanism connected to said steering shaft, through a reduction gear mechanism; and a third resolver for detecting a motor electrical angle indicating the rotational angle of said electric motor, said electric power steering device being capable of controlling said electric motor based on the rotational position of said steering wheel which is calculated based on said first and second steering angles and said motor electrical angle, wherein:

at least one of the reduction gear ratio of said reduction gear mechanism and the number of pole pairs of said third resolver is set so that a calculated value which is obtained by multiplying said reduction gear ratio with said number of said pole pairs represents a non-integer having a numerical value of the decimal place.

2. The device as set forth in Claim 1, wherein said numerical value of the decimal place of said calculated value is within one of predetermined ranges.

3. The device as set forth in Claim 2, wherein said predetermined ranges are numerical ranges of the decimal place which cause those angular deviations corresponding in value to 67% to 100% of the largest one of angular deviations from said motor electrical angles which deviations are different for the respective rotational range units including at least one left rotation and one right rotation of said steering wheel.

4. A method of manufacturing an electric power steering device having a steering wheel; a first resolver for detecting a first steering angle indicating the rotational angle of a steering shaft connected to said steering wheel; a second resolver having pole pairs different in number from those of said first resolver for detecting a second steering angle indicating the rotational angle of said steering shaft; an electric motor for assisting the steering operation performed by a steering mechanism connected to said steering shaft,

through a reduction gear mechanism; and a third resolver for detecting a motor electrical angle indicating the rotational angle of said electric motor; said electric power steering device being capable of controlling said electric motor based on the absolute rotational position of said steering wheel which is calculated from said first and second steering angles and said motor electrical angle, said method including the step of setting at least one of said reduction gear ratio of said reduction gear mechanism and the number of pole pairs of said third resolver so that a calculated value which is obtained by multiplying said reduction gear ratio with said number of pole pairs of said third resolver represents a non-integer which has a numerical value of the decimal place within one of numerical ranges "0.17 to 0.28", "0.39 to 0.42", "0.58 to 0.61" and "0.72 to 0.83"

5. An apparatus for manufacturing an electric power steering device having a steering wheel; a first resolver for detecting a first steering angle indicating the rotational angle of a steering shaft connected to said steering wheel; a second resolver having pole pairs different in number from those of said first resolver for detecting a second steering angle indicating the rotational angle of said steering shaft; an electric motor for assisting the steering operation performed by a steering mechanism connected to said steering shaft, through a reduction gear mechanism; and a third resolver for detecting a motor electrical angle indicating the rotational angle of said electric motor, said electric power steering device being capable of controlling said electric motor based on the absolute rotational position of said steering wheel which is calculated from said first and second steering angles and said motor electrical angle, said apparatus including means for setting at least one of said reduction gear ratio of said reduction gear mechanism and said number of pole pairs of said third resolver so that a calculated value which is obtained by multiplying said reduction gear ratio with said number of pole pairs of said third resolver represents a non-integer which has a numerical value of the decimal place within one of numerical ranges "0.17 to 0.28", "0.39 to 0.42", "0.58 to 0.61" and "0.72 to 0.83". numerical ranges of the decimal place which cause those angular deviations corresponding in value to 67% to 100% of the largest angular deviation of said motor electrical angles being different for the respective rotational range units including at

lest one left rotation and one right rotation of said steering wheel.